

**REMARKS/ARGUMENTS**

Favorable reconsideration of this application is respectfully requested.

Claims 1, 12, 23, and 34 are pending in this application. Claims 2-11, 13-22, and 24-33 were previously canceled without prejudice or disclaimer. Claims 1, 12, and 23 have been amended to better describe the acquisition of a histogram of a number of discrete luminance values calculated by linearly combining color component brightness values of at least each of reference pixels, and that determination whether the image is a non-natural image or a natural image, or that it can not be determined whether the image is either a natural image or a non-natural image is based on the number of discrete luminance values appearing in the histogram of discrete luminance values. This acquisition of the histogram having a number of discrete luminance values calculated by linearly combining color component brightness values of at least each of reference pixels is taught at least relative to page 44, line 14 to page 45, line 7 and page 46, line 12. Further note the specification at page 39, lines 1-5, describing step 104 of FIG. 7 and at page 87, lines 10-14, of the specification describing step 304 of FIG. 30. As further noted at page 39, lines 5-7, of the specification describing step 106 of FIG. 7 and at page 87, lines 14-16, of the specification describing step 306 of FIG. 30, the number of discrete luminance values appearing in these histograms of discrete luminance values are determined. As further explained relative to the remaining steps of FIG 7 and FIG. 30, as well as at page 47, lines 13+, this number of discrete luminance values is the basis for determining that the image can be classified as either a non-natural image or a natural image, or that it cannot be classified as being just one or the other so that the use of a blend is required. Accordingly, it is clear that no new matter has been included in these amendments.

The outstanding Office Action presents a rejection of Claims 1, 12, 23, and 34 under 35 U.S.C. §103(a) as being unpatentable over Tanaka et al. (U. S. Patent No. 5,953,463, herein "Tanaka") in view of the Athitsos et al. article ("Distinguishing Photographs and

Graphics on the World Wide Web,” herein “Athitsos”), in view of Sekine et al. (U.S. Patent No. 5,754,710, herein “Sekine”).

Independent Claims 1, 12, and 23, all require acquiring “a histogram of a number of discrete luminance values calculated by linearly combining color component brightness values of at least each of the reference pixels,” and then determining “if the image is a non-natural image or a natural image, or that it cannot be determined whether the image is either a natural image or a non-natural image, based on the number of discrete luminance values appearing in the histogram of discrete luminance values (emphasis added).

It is well established that a *prima facie* case of obviousness requires that all claim limitations be considered and demonstrated to be taught or suggested by the prior art, see MPEP §2143.03.

Thus, there must first be a teaching appearing in one of the applied references that such a histogram “of discrete luminance values calculated by linearly combining color component brightness values” (emphasis added) is to be acquired before it can be asserted that a *prima facie* case of obviousness has been established. Moreover, even if it could be shown that one of Tanaka, Athitso, and Sekine actually taught this feature of acquiring a histogram “of discrete luminance values calculated by linearly combining color component brightness values” (emphasis added), it would also have to be shown that these references somehow also teach determining “if the image is a non-natural image or a natural image, or that it cannot be determined whether the image is either a natural image or a non-natural image, based on the number of discrete luminance values appearing in the histogram of discrete luminance values” (emphasis added).

The outstanding Action asserts that Tanaka teaches a function of determining if the image is a non-natural image or a natural image or that it cannot be determined whether the image is either a natural image nor (now recited as “or” to be grammatically correct) a non-

natural image at col. 9, lines 7-16 at page 3 of the outstanding Action. However, it is clear that the discussion of possible ways of detecting “characters, photographs, and mesh dots” discussed at col. 9, lines 7-16 (and more completely discussed at col.9, line 17 to col. 11, line 50) of Tanaka do not teach or suggest the presently claimed acquiring of “a histrogram of a number of discrete luminance values,” much less that such “discrete luminance values” are “calculated by linearly combining color component brightness values of at least each of the reference pixels” (emphasis added).

Similarly, no such acquiring of “a histrogram of a number of discrete luminance values calculated by linearly combining color component brightness values of at least each of the reference pixels” (emphasis added) is taught or suggested by either the Athitsos article or Sekine.

In this regard, Sekine is only concerned with converting an image of a first resolution to a second resolution as noted in the Abstract and “Field of the Invention” statement at col. 1, lines 10-13. Thus, Sekine is not concerned with establishing any criteria at all to determine if an image is a non-natural image or a natural image, much less with a criteria that will also indicate that it cannot be determined whether the image is either a natural image or a non-natural image.

On the other hand, the Athitsos article is concerned with the development of “an automated system that classifies Web images as photographs or graphics” that is “based on statistical observations about the image contents of the two types.” The Athitsos article first teaches that the differences between photographs and graphics noted in Section 3.2 that bridges page 11 and 12 is based on considering pure photographs and only computer generated pure graphics, not mixed images containing both and not hand drawings, see section 3.1 on page 11. It is in this context that the Athitsos article sets forth the basic differences between pure photographs and pure computer graphics noted in Section 3.2 that

are noted to be “color transitions” based on “different patterns” in the pure photographs and pure computer graphics of concern, sharper edges that generally appear in the computer generated graphics of concern as compared to pure photographs that have blurred boundaries between objects and color transition boundaries that are due to light variations and shading that do not correspond to boundaries between objects, certain highly saturated colors that are much more likely to appear in computer graphics than in pure photographs, the use of fewer colors in computer graphics as compared to pure photographs, and the different shapes and sizes associated with computer generated graphics as compared to pure photographs. These “differences” are then translated into the “Image Metrics” of section 4 that are combined using decision trees as explained in sections 5.1-5.3. None of these teachings even remotely suggest acquiring “a histogram of a number of discrete luminance values calculated by linearly combining color component brightness values of at least each of the reference pixels” (emphasis added), much less that such “discrete luminance values” are “calculated by linearly combining color component brightness values of at least each of the reference pixels” (emphasis added).

As neither Athitsos nor Sekine cure the above noted deficiencies of Tanaka, it is respectfully submitted that amended independent Claims 1, 12, and 23 all patentably define over Tanaka, Athitsos, and Sekine whether these references are considered alone or together in any proper combination.

In this last regard, the combination of reference teachings proposed in the outstanding Action is once again noted to be clearly improper as the modification of the region segmentation data of value X to perform as noted at col. 3, lines 11-21, of Tanaka would have to undergo a complete redesign and operate using a different principle if the actual Athitsos teaching of using the tree combination of metric scores approach and the Sekine pattern

matching were to be somehow be incorporated. This violates established precedent, see

MPEP § 2143.01 VI as follows:

**VI. THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE**

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (Claims were directed to an oil seal comprising a bore engaging portion with outwardly biased resilient spring fingers inserted in a resilient sealing member. The primary reference relied upon in a rejection based on a combination of references disclosed an oil seal wherein the bore engaging portion was reinforced by a cylindrical sheet metal casing. Patentee taught the device required rigidity for operation, whereas the claimed invention required resiliency. The court reversed the rejection holding the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.).

Accordingly, the outstanding rejection of Claims 1, 12, and 23 under 35 U.S.C. §103(a) as being unpatentable over Tanaka in view of the Athitsos in further view of Sekine is traversed for the reasons stated above and the withdrawal of this rejection is respectfully requested.

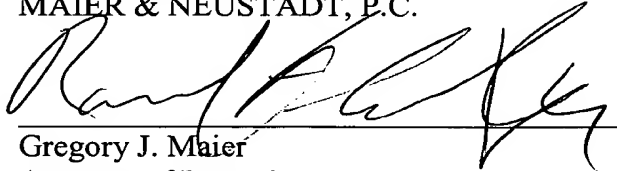
As the subject matter of dependent Claim 34 includes the subject matter of amended independent Claim 1, the rejection thereof based upon any or all of the above-noted references is traversed for the reasons noted above as to the parent independent claim. In addition, any such rejection is further traversed because none of the applied references teach or suggest the additional features of Claim 34.

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As no further issues are believed to remain outstanding in the present application, it is believed that this application is clearly in condition for formal allowance and an early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Gregory J. Maier', is written over a horizontal line.

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